

TMD: CONSERVATIVE TREATMENT AND PHYSICAL THERAPY OPTIONS

- **Massage:**

The **temporalis** on the side of the head is easy to locate. Press on it looking for painful nodules, massaging gently. Opening and closing the mouth a little at the same time may be helpful. The temporalis muscle, often in spasm in the TMJ syndromes, is one of the major cause of migraine headache.

Repeat with the **masseter** muscle. It is located on the side of your jaw. Placing your thumb inside the mouth, and gently squeezing the nodules and cheek tissue may be helpful.

To reach the **pterygoid** muscle is more difficult. Slide the tip of your index finger, pad facing outwards, between the upper teeth and the cheek, as far back as you can. You will reach a little crevice called the pterygoid pocket. Gently massage the muscle, pressing outwards, slowly moving the jaw. It is often exquisitely tender with TMJ problems and migraine headache.

- **Moist Heat:** Moist heat from a heat pack or a hot water bottle wrapped in a warm, moist towel can improve function, increase circulation, reduce pain, and relax muscles. Be careful to avoid burning the skin.
- **Ice:** Ice packs can decrease inflammation and also numb pain and promote healing. Do not place an ice pack directly on your skin. Keep the pack wrapped in a clean cloth while you are using it. Do not use an ice pack for more than 10 - 15 minutes.
- **Muscle guarding:** Soft diet or blended foods allow the jaw to rest temporarily. Remember to avoid hard, crunchy, and chewy foods. Do not stretch the mouth to accommodate such foods as corn on the cob, apples, or whole fruits.
- **Over the-Counter Analgesics:** For many people with TMJ Disorders, short-term use of over-the-counter pain medicines or nonsteroidal anti-inflammatory drugs (NSAIDS), such as ibuprofen, or a combination of ibuprofen and acetaminophen may provide temporary relief from jaw discomfort.
- **Jaw Exercises:** Slow, gentle jaw exercises may help increase jaw mobility and healing. Your health care provider or a physical therapist can evaluate your condition and suggest appropriate exercises based on your individual. Be sure to discuss your jaw limitations with your doctor prior to surgery or a long dental appointment so he/she uses extreme caution. Anesthesia, often used during dental procedures, can affect mouth opening and damage the joint. If possible, avoid long dental appointments requiring an open mouth for more than 30 minutes.
- **Stress management and behavioral modification:** More often than not the cause of TMJ and jaw pain one side or both is stress and tension. This pain can also come from poor posture, (especially forward head tilt) and can have the same affects as tension build up. Tension can build up in the body throughout the day, some muscles become overworked which forces them to rely on surrounding muscles. This creates tightness and starts a chain reaction around the body causing it to function unnaturally. As mentioned before, many can start clenching and grinding teeth and not even notice it. The key to stress management is awareness. Take note of the way the jaw behaves throughout the day; when aware of clenching or being “stressed-out”, take a little break. The break doesn’t have to be long, maybe a couple of minutes. What’s important is to focus on relaxing the entire body and breathing in and out slowly. Doing this will relieve stress on muscles all around the body as well as the jaw. Thus, relieving the stress on surrounding muscles will further relax the jaw. As well as daytime breaks, try to do it before and after sleep. This will help train the body to be relaxed during the day and during sleep (where many people clench their teeth without realizing). Avoid parafunctional habits: cheek and lip biting, nail biting, gum chewing, stomach sleeping, etc.

EXERCISES

Passive Exercises

Although these exercises may seem very simple and possibly ineffective, they will positively affect the way the jaw moves and aid in releasing some of the tension that builds in the area. They are a great starting point. Passive exercises are those that require little active force from the muscles. They should be done without causing pain and can aid in maintaining blood flow to the muscles, which decreases the chances of myostatic contracture.

Passive Exercise 1:

Stand in front of a mirror and open the mouth slowly and gently along a straight opening pathway. Don't push into pain if possible. It is important to watch the jaw and make sure it is opening and closing in a symmetrical way.

Passive Exercise 2:

In front of the mirror again, slide the bottom of your jaw to the left and to the right in a slow controlled way. Repeat this 10 times per session, six sessions a day. Once again try and maintain a straight path.

Passive Exercise 3:

Click the tongue against the top of the mouth. If this can be done, proceed by opening and closing the jaw while holding the tongue against the roof of your mouth.

Another very important thing to keep in mind is your posture. Make sure posture is correct, sitting upright, with shoulders back, core firm, head erect and level over spine.

Active Exercises

Active exercises require more force to be generated by the muscles. So if your muscles hurt too much under small amounts of strain these exercise may not be right for you. There are three types of exercises that can be used: **assisted stretching, resistant, and clenching**. It is important to stop immediately if pain persists and always consult your medical professional before attempting these exercises.

Assisted Stretching:

Assisted stretching exercises should be used to regain muscle strength. It is important to avoid pain when doing stretching, if pain is felt, decrease the amount of force.

Protrusive: Apply stretching force gently and intermittently to the elevator muscle. (*The muscle that lowers and raises your bottom jaw.*) It should look like the bottom jaw is jutting out. Stretch for 30 seconds on and off 6 times.

Opening: Rotate thumb and forefinger between upper and lower teeth, slowly prying teeth apart; gradually increase the dimension of stretch by being able to fit one up to three fingers width between teeth in maximum opening.

Resistant Exercise:

Resistant exercises use pressure to trick the brain into releasing pressure.

Place your fist under the chin and open the mouth against the resistance. Repeat this 10 times per session, two sessions a day. Discontinue the exercises if pain or discomfort is felt.

Clenching Exercise:

Clench the jaw for 5 seconds, then relax the jaw; repeat ten times. Do not clench too hard, it is important not to feel any pain and to concentrate on relaxing. Eating crunchy foods before bed can have the same effect as this exercise by decreasing night-time clenching and bruxing.

CONSERVATIVE TMD EXERCISES I

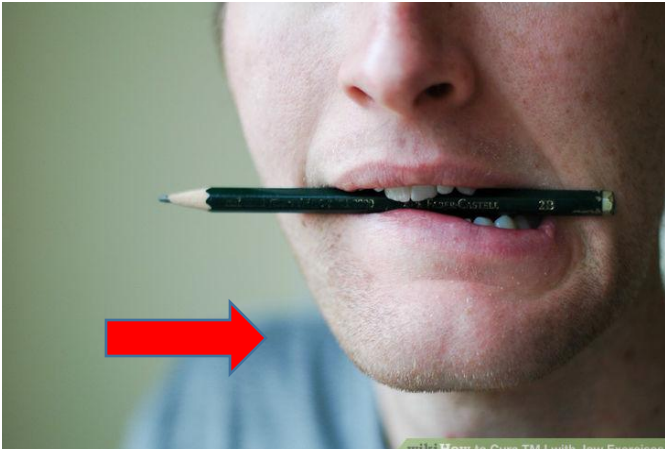


Resisted mouth opening - upwards force. Place the thumb or two fingers under the chin and open the mouth slowly, lowering the jaw while applying steady light pressure to the bottom of the chin with the thumb while pushing up gently on the chin. Hold the mouth in the open position for 3 to 6 seconds, then close the mouth slowly. Repeat this exercise for 3 to 6 repetitions, 3 to 4 times daily.



Resisted mouth opening - downwards and backwards force. Push lightly with both the thumb and index finger in a downward and backward direction as you open then close the mouth slowly. Hold the mouth in the open position for 3 to 6 seconds, then close the mouth slowly. Repeat this exercise for 3 to 6 repetitions, 3 to 4 times daily.

CONSERVATIVE TMD EXERCISES II



Exercise the jaw with side-to-side movement. Open the mouth and place an object that is less than 1/2-inch thick, such as a pencil or a popsicle stick, between your teeth. Move the jaw slowly to one side then the other, in a right and left motion. Perform this exercise several times choosing a thicker object to place between your teeth when the exercise is no longer challenging. Repeat for 3 to 6 repetitions, 3 to 4 times daily.



Put the same item between your front teeth to exercise your jaw with a forward protrusion motion. Slowly move the bottom jaw forward until the upper teeth are behind the lower teeth. Repeat this exercise several times, again replacing the object with something thicker when the exercise seems too easy. Repeat for 3 to 6 repetitions, 3 to 4 times daily.

CONSERVATIVE TMD EXERCISES III



Tongue up: Start with the teeth closed gently against each other - rest the tip of your tongue against the top of the mouth, just behind the front teeth. Now run the tip of the tongue backwards along the top of the mouth, keeping the teeth closed, until it can just reach some soft tissue (the soft palate). Hold your tongue on the roof of the mouth and slowly open the jaw. When it feels like the tongue is being pulled away from the soft palate, STOP. Don't open any further. Stop before the tongue leaves the soft palate, or if it hurts, or clicks or pops. Stop opening the mouth before the jaw pops. Hold this position for a few seconds and then relax - closing the mouth while touching the roof of the mouth with the tongue. Repeat for 3 to 6 repetitions, 3 to 4 times daily.

Facial Muscle relaxation and Tongue Proprioception and Control:

- Place the tip of the tongue on the hard palate behind the front teeth and draw little circles or letters on the palate. For additional stimulus, place a Lifesaver between the tongue and palate; then follow the circular edge with the tip of the tongue.
- Place the tip of the tongue on the hard palate and blow air out to vibrate the tongue, making an "rrrr" sound.
- Fill the cheeks with air (mouth closed) ; then let the air out in a puff.
- Make a "clicking" sound with the tongue on the roof of the mouth. This causes the jaw to drop open quickly and returns with the teeth slightly apart with the tongue resting on the hard palate behind the front teeth. This is the resting position of the jaw and is the first step in relaxation exercises.